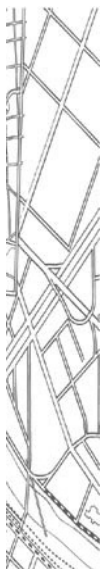


Appendix D – Operational Traffic Assessment



Traffic Report

Cross City Tunnel Project - Impact Assessment of Proposed Modifications to Surface Road Network 13 June 2006

Prepared for

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1. Introduction

Since the Cross City Tunnel (CCT) opened to traffic, the Roads and Traffic Authority of NSW has been reviewing and monitoring traffic flows throughout Sydney, as part of its usual traffic management functions. The RTA now proposes the following modifications to the CCT surfaces works:

1. Reopen the Bourke Street intersection to the Southern side of William Street for left in/ left out movements.
2. Removing the seagull island at the intersection of Sir John Young Crescent and Cowper Wharf Road to allow direct access to the harbour crossing from Palmer Street/Sir John Young Crescent. (Note 2, 3 and 10 and 11 are interrelated.)
3. Reintroducing traffic signals at the intersection of Palmer Street and Sir John Young Crescent to assist efficiency of traffic flow. Note 2, 3, 10 and 11 are interrelated
4. Reopening Druitt Street to general traffic running westbound between Kent Street and Clarence Street
5. Retaining two right turn lanes from Elizabeth Street northbound into park Street eastbound
6. Provide a dedicated right turn lane at Queens Cross for a turning movement from Darlinghurst Road northbound into Kings Cross Road eastbound
7. Provide an additional traffic lane eastbound along William Street east of Palmer Street to McElhone Street. (inc. removing the existing bicycle lanes eastbound between Palmer Street and McElhone Street and westbound between Darlinghurst Road and Palmer Street)
8. Not installing a new bus lane southbound of Elizabeth Street between Park Street and Bathurst Street
9. Change Palmer Street from one lane northbound and one lane southbound between Sir John Young Crescent and Cathedral Street to two lanes northbound. Note interrelated with 2, 3 and 10.
10. Reinstall second right turn from Cahill Expressway off ramp to Cowper Wharf Road.

11. Remove bicycle lane on Kings Cross Road eastbound between Darlinghurst Road and Ward Avenue (approx 400 metres).
12. Remove bicycle lane on Craigend Street between Roselyn Street footbridge and Darlinghurst Road (approx 400 metres).

This report assesses the traffic implications of these changes as a package, relative to the nature and scale of the Project as approved by the Minister for Planning on 3 October 2001, as substantially modified on 12 December 2002.

Section 2 outlines the analytical methodology used in assessing the changes, Section 3 discusses findings of the analysis, and Section 4 provides concluding comments.



2. Methodology

Since undertaking the original traffic and transport analysis of the CCT project in 2000, changes have occurred to the base assumptions made in the work conducted for the Environmental Impact Studies (EIS). Some of these base assumptions relate to:

- Population and employment growth
- Toll behavioural response
- Petrol pricing
- Travel time savings
- E-tag uptake in the corridor

Even taking into account Tunnel traffic volumes are still in the 'ramp-up' phase¹, traffic forecasts provided in the Supplementary Representations Report for the CCT are clearly at variance to that now observed. Use of the same models used in the EIS work in 2000 to predict traffic changes resulting from the now proposed modifications would be inappropriate.

Revised models have now been prepared and these rely on more recent data from the Transport and Population Data Centre (part of the NSW Department of Planning) and new modelling technology. In addition, the modelling is conducted at two levels; strategic forecasting with a model covering all of Sydney metropolitan area, and micro simulation operation modelling covering Sydney CBD only in a highly detailed manner.

However, a cautionary note is required. Because the road network traffic patterns are still in a state of flux because of CCT 'ramp-up' and the impact of road construction activities, detailed model calibration and validation has not been undertaken. In addition;

¹ Ramp-up is a term to describe the process of traffic demand to a tolled facility building up to an equilibrium state at which point the travelling public are familiar with the facility and making rational trade-offs between the cost of the toll and travel time savings. It is a process that can extend for more than three years after opening.

- travels times have only been validated on William Street, Park Street, Bathurst Street and Druitt Street;
- one east-west CBD screenline test has been used compared to the four in the EIS work;
- model value of time parameters not validated and ;
- the results have not been audited.

The use of micro simulation modelling techniques has identified that the capacity of the CBD road network is influenced by RTA SCATS² management of the traffic signals. Operational changes brought about by SCATS do have a bearing on traffic flows which were not previously accounted for in EIS work.

The proposed changes will have an impact on the way SCATS manages the system and where identified in the micro simulation modelling, the effect of SCATS has been incorporated in the strategic modelling.

Despite the cautionary note on the model state of validation, the methodology offers an improved approach compared to the use of the EIS base data and is considered appropriate for the assessing of changes that may occur with the implementation of the proposed modifications.

The results reported in the following sections have been prepared on the basis that the CCT is at equilibrium patronage, i.e. ramp-up has finished. As noted above, road network traffic patterns are still in a state of flux and CCT ramp-up is still underway. The purpose of assuming equilibrium in the preparation of the results is to describe the end state impacts.

² SCATS – Sydney Co-ordinated Adaptive Traffic System. RTA developed software which controls the traffic signal system in response to traffic demand. It does this by varying the light phase times and co-ordination with other intersections.



3. Analysis of Impacts

The proposed modifications have been examined (modelled) as a package rather than considering each change in isolation as these changes need to be considered in the context of the network as a whole. Some of the changes are interrelated and unlikely to affect any change to traffic conditions without another. Where applicable, these changes have been grouped in the following subsections which discuss the specific impacts.

The assessment has given consideration to the effects on all modes of road based traffic – bicyclists, cars, and public transport.

3.1 Overview of Traffic Changes and Effect on CCT Patronage

The intent of the proposed changes is to improve traffic flows and accessibility on some surface roads within Sydney CBD. While the EIS studies for the CCT supported the current surface traffic management works on the basis on improving the CBD's streets with respect to criteria other than traffic function, there has been an issue as to whether too much traffic capacity has been withdrawn. The subsequent traffic congestion affects road users that are not potential users of the CCT and hence have no alternate route to avoid congestion. These road users are generally those with origins or destinations within Sydney CBD and Woolloomooloo.

Analysis of the package of the proposed changes shows no significant overall changes to the travel demand on the CBD surface streets. However there are some predicted localised changes of significance which, for the most part, are the diversion of traffic away from the now congested areas thus indicating an expected improvement.

Appendix A provides a summary table of expected traffic changes in some the areas of congestion in the road network. The forecasts are provided for AM and PM peak hours and daily average flows for 2006 and five years forward in 2011. These changes are discussed in the following sections.

With respect to the CCT itself, the proposed changes only have a small effect on the tunnel patronage.

As most of the proposed changes go toward freeing up westbound traffic in the CBD, it is not unexpected to observe that most of the small overall anticipated reduction in traffic is in the CCT westbound direction and the Sir John Young Crescent exit. The two principal sources of this reduction are Items 2 and 3 which are discussed in Sections 3.3 and 3.4 respectively.

3.2 Reopen the Bourke Street South Side of William Street for Left in/ Left out Movements

The configuration of the William Street and Bourke Street intersection proposed in the Supplementary EIS for the CCT project envisaged the banning of right turns from William Street westbound to Bourke Street northbound and leaving Bourke Street south open to all traffic movements.

The configuration of the intersection now constructed in accordance with Minister for Planning's Conditions of Approval No. 288 resulted from subsequent consultation with local residents and stakeholders. The closure of Bourke south of William Street and maintaining the right turn from William Street to Bourke Street north sought to address community concerns of with respect to dealing with a range of issues covering;

- Reducing non local traffic on Bourke Street through Woolloomooloo
- Maintaining access to the Eastern Distributor southbound entry ramp
- Pedestrian safety crossing William Street

Re-opening of Bourke Street south to left-in and left-out traffic movements is therefore consistent with the approved project and should be considered under the requirements of Condition 288. Allowing these movements does improve access for traffic with destinations in the area but does not open up a through route that may attract non-local traffic.

Traffic modelling forecasts little or no change in southbound traffic flow in Bourke Street being in the order of 100 vehicles per hour during the peak periods. This is principally generated by the attraction of activities in the local Stanley Street precinct.

For the northbound direction, the additional traffic is slightly higher at 230 vehicles per hour during peak periods. Again, the majority is local traffic generation but approximately 100 vehicles per hour have been diverted off Crown Street.

Overall, the opening up of Bourke Street south of William Street generally improves local access and, on a daily basis, is expected to result in only 3,000 to 4,000 vehicles per day on this section of Bourke Street. This level of traffic is consistent with that

expected on residential streets and well below pre CCT conditions of 7,000 vehicles per day when Bourke Street was fully open to traffic.

3.3 Re-Opening Northbound Access to Cahill Expressway From Sir John Young Crescent

The re-opening of northbound access through Woolloomooloo consists of the following package of changes;

- Removing the seagull island at the intersection of Sir John Young Crescent and Cowper Wharf Roadway to allow direct access to the harbour crossing from Palmer Street/Sir John Young Crescent
- Reintroducing traffic signals at the intersection of Palmer Street and Sir John Young Crescent to assist efficiency of traffic flow and facilitate flow to the Sir John Young Crescent and Cowper Wharf Roadway intersections
- Palmer Street two lanes northbound between Sir John Young Crescent and Cathedral Street to assist the operation of traffic signals at Sir John Young Crescent.

The principal purpose of this set of changes is to improve access out of the Woolloomooloo area to the Cahill Expressway and the Harbour Crossing.

The forecast traffic on the ramp to Cahill Expressway from Cowper Wharf Roadway more than doubles with an increase of about 7,500 vehicles per day.

Of this increase only a small proportion is expected to be due to diversion from the CCT as there is a limitation on the amount of traffic which may access the Cahill Expressway from William Street. There exists only one right turn lane on William Street for eastbound traffic turning into Palmer Street compared to the two which existed prior to the CCT project. Of the 7,500 vehicles per day increase entering the Cahill Expressway from Woolloomooloo, only a small proportion is accounted for by diversion from the CCT.

This indicates the improved access is mostly to the benefit of local traffic. Accordingly, the forecast increased surface street traffic reduces traffic flows in CCT – Sir John Young Crescent Exit by only a small percentage over an average day.

Traffic re-enters the surface street system with increases on Palmer Street, Riley Street and Sir John Young Crescent. A significant increase (>50%) is expected on Palmer Street north of William Street. However this is significantly below the pre CCT conditions with traffic volumes in excess of 30,000 vehicles per day in Palmer Street. In 2006, forecast traffic volumes will increase from 13,000 vehicles per day for the Approved project to 14,800 vehicles per day for the proposed changes.

Increased access to the Harbour Crossings also reduces traffic on the current diversion routes, being Cowper Wharf Road and the College Street/Macquarie Street route.

3.4 Reopen DrUITT Street to General Traffic Westbound between Kent Street and Clarence Street

The re-opening of DrUITT Street between Kent St and Clarence St to general traffic alters traffic patterns for westbound traffic across the city. Traffic modelling shows an increase in traffic on the Park Street – DrUITT Street corridor greater than 50%. However accompanying this are forecast reductions on Market Street, the presently congested parallel route.

Some of this traffic is from the CCT with the remainder being traffic diverted from alternate routes including Market St, Liverpool Street and Goulburn Street. In addition it also improves access for northbound traffic on George Street which, at present, is only available via Liverpool Street-Kent Street.

The reopening of DrUITT Street also removes the “dog-leg” movement of DrUITT-Clarence-Market Streets thus resulting in a significant reduction in traffic flow on Clarence Street between DrUITT Street and Market Street with consequential benefits to bus services in Clarence Street.

Overall the re-opening DrUITT Street significantly improves access to the Western Distributor for traffic originating in the CBD core.

In terms of impact on bus operations, it is noted that this section of DrUITT Street was dedicated buses only as part of the approved CCT project. Its re-opening to general traffic is not expected to alter current bus operations as;

- A dedicated westbound bus lane already exists, and
- The proposed westbound general traffic lane is effectively an additional lane as it is presently a painted island.

In reality this proposed change may improve current bus conditions as traffic congestion brought about by the closure is causing queuing in Clarence Street and DrUITT Street and this impedes buses when they reach DrUITT Street from York and George Streets.

3.5 Retaining Two Right Turn Lanes from Elizabeth Street Northbound into Park Street Eastbound

This proposal also includes not installing a new bus lane southbound of Elizabeth Street between Park Street and Bathurst Street.

These two changes merely preserve the present intersection configuration at Elizabeth Street and Park Street.

The proposal to remove one of the two right turn lanes would enable road space to be freed up to facilitate the installation of a southbound bus lane on Elizabeth Street through the intersection.

The provision of a bus lane at this location does not provide significant operational advantages for buses, as competing general traffic movements are not an impediment. Not providing it has no significant operational consequence. However, it is recognised that the bus lane would provide the right visual cues to other traffic to aid the priority of buses and give significance to Elizabeth Street as a public transport corridor.

There is, however, one possible operational negative for buses should one of the right turn lanes be removed. Should the northbound flow on Elizabeth become congested due to the right turn demand not being contained in its lane, it will impinge upon the northbound bus movements. This situation does presently occur on occasions. So while a southbound bus lane is not warranted to improve operations, its provision may in fact hinder northbound operations should right turning traffic from Elizabeth Street to Park Street eastbound not be adequately catered for.

It can be concluded that the proposal not to proceed with the changes will ensure sufficient capacity is preserved for northbound traffic and will thus help northbound bus operations by maintaining an extra lane around the left and right turning traffic at this location.

3.6 Provide Dedicated Right Turn Lane from Darlinghurst Road Northbound into Kings Cross Road Eastbound

The current traffic configuration evolved from community and council consultations on the Urban Design and Landscaping Plan for this area, prepared in accordance with Condition 166 of the Planning Approval, which sought to de-emphasise the traffic function of this intersection by reducing road space and widening footpaths.

It is evident that removing one northbound lane at this intersection to facilitate footpath widening has created a level of traffic congestion that detracts from the overall objective. Insufficient capacity is available in the one remaining lane for both the northbound through traffic and traffic turning right into Kings Cross Road eastbound.

The proposed provision of the dedicated right turn lane reverts the intersection back to its original operational state and is thus expected to clear up the current undesirable traffic congestion.

3.7 Provide Additional Eastbound Lane on William Street Between Palmer Street and McElhone Street

The need for this additional lane is the consequence of changes made to the William Street and Bourke intersection as outlined in Section 3.2.

By way of background, there are some 10,000 vehicles per day exiting the Eastern Distributor southbound into Palmer Street and then left onto William Street eastbound. The CCT Project does not offer an alternate route for this movement.

Prior to the CCT Project, three eastbound lanes were available on William Street east of Palmer Street to cater for this flow and that on William Street. The CCT Project included the reduction of this section of William Street by one lane despite the fact that the 10,000 vehicles per day would remain on Palmer Street left turn movement onto William Street.

However it was envisaged that with the removal of the right turn from William Street westbound to Bourke Street northbound, it would afford more green time to the William Street eastbound thus compensating the loss of lane capacity.

As discussed in Section 3.2 reconfiguration of the intersection pursuant to the Minister for Planning's Conditions of Approval No. 288 and the consequent community consultation resulted in the right turn being instated without the re-instatement of the third eastbound lane.

As a result, considerable eastbound traffic congestion occurs which causes Palmer Street to at times queue back into to the Eastern Distributor. Additionally significant eastbound delays occur on William Street because of congestion at the Palmer Street and Bourke Street intersections. This in turn has an impact on bus operations as single occupant cars start to disregard the T2 lane due to the congestion. The priority afforded by the T2 lane is lost to buses.

It is unlikely that this situation will resolve itself even if more west to eastbound traffic uses the CCT.

There are two solutions to the issue;

- Ban the right turn from William Street westbound to Bourke Street northbound, to recover more green time for William Street eastbound, or
- Reinstate the third eastbound lane on William Street east of Palmer Street.

Give the communities preference to maintain the Bourke Street right turn, the reinstatement of the third lane is warranted.

Appendix A traffic forecasts confirm little or no change in traffic volumes in the eastbound direction on William Street at this location when following reinstatement of the third lane. But it is forecast to reduce delays for general traffic while improving the operation of the T2 lanes for buses.

The additional lane will go towards addressing one of the community's major concerns with post CCT traffic congestion.

3.8 Reinstall Second Right Turn from Cahill Expressway off ramp to Cowper Wharf Road

This proposal reinstates the second right turn lane that previously existed prior to the CCT project.

The removal came about due to the reconfiguration of the Sir John Young Crescent and Cowper Wharf Roadway intersection. As only one through lane is provided in the westbound direction on Cowper Wharf Roadway to Sir John Young Crescent, removal of one of the right turn lanes southbound off the Cahill Expressway was thought to be necessary to avoid two lanes merging into one and thus creating a safety issue. (A second lane does exist in Cowper Wharf Roadway but this is a right turn bay to re-enter the Cahill Expressway northbound to the harbour crossing. It was thought that any traffic on the southbound off ramp to Cowper Wharf Roadway was unlikely to want to use the right turn bay to re-enter northbound).

However, there exists a small traffic movement originating from the Macquarie Street that enters the Cahill Expressway southbound and immediately exits to Cowper Wharf Roadway. This movement effectively undertakes a U-turn movement to re-enter the Cahill Expressway northbound thence the Sydney Harbour Tunnel. Access to the Sydney Harbour Tunnel is not otherwise available from Macquarie Street precinct.

Reinstatement of the second right turn lane designated for this U-turn would improve the efficiency of the Cowper Wharf Roadway intersection and reduce delays for traffic wanting to turn left off the ramp into Woolloomooloo area.

This proposed change is only of local consequence in terms of reducing delays and not expected to change traffic flows in the area.

3.9 Removal of Bicycle Lanes on William Street and in Kings Cross

The additional eastbound lane in William Street discussed in Section 3.7 from Palmer Street to McElhone Street will be provided through the removal of the eastbound and westbound bicycle lanes in this section of road.

Following the removal of the bicycle lanes, bicyclists using William Street will need to share the kerbside lanes with vehicle traffic.

An exclusive bicycle lane provides a high degree of individual rider comfort and safety compared with shared vehicle / bicyclist kerbside lane use.

The proposal will result in a direct trade off between bicycle safety and the need for traffic efficiency discussed in Section 3.7. The extent that bicycle safety will be affected is evaluated against the following:

- preferences of bicyclists who use the route;
- speed of buses and other traffic;

- location of bus stops / side streets;
- available width of each lane; and
- traffic volumes of buses and other traffic.

By considering the above criteria, it is envisaged that the experience of bicyclists will be similar to that previously provided (before CCT). Prior to the CCT, the cross section of William Street from Palmer Street to McElhone Street included three through lanes in each direction, had significantly higher traffic volumes and did not include any bicycle facilities.

The traffic assessment for the Approved CCT project reported an expected 46,000 vehicles per day for this section of William Street after CCT opening (approximately 40% decrease on pre CCT volumes). Traffic flows in this location are now in the order of 48,000 vehicles per day since opening of the CCT and provides an improved environment for bicyclists. The forecast volumes with the proposed modifications indicate no significant change.

Traffic efficiency in this critical section of William is prioritised above the needs of bicyclists to assist the eastbound traffic flow including bus operations. However, the bicycle lanes represent an identified RTA regional bicycle route between Sydney and Woolloomooloo. (RTA's Action for Bikes³ provides for a bicycle path along William Street to Darlinghurst Road, thence to Woolloomooloo.) Given the importance of William Street as a bicycle corridor, it is essential to maximise the kerbside lane width in term of Austroads Guidelines.

The section of William Street, east of Palmer Street and west of Forbes Street is not currently a T2 transit lane. With the provision of the additional eastbound lane in this section as proposed, it could be designated as a T2 transit lane. Transit lanes provide improved travel for buses, taxis and other vehicles carrying multiple occupants. They can also be used by emergency vehicles, motorcycles and bicycles.

Austroads Guidelines⁴ permit the use of shared minimal width bus lanes on the left lane of an urban arterial road under very congested conditions. Although this practice is not preferred, particularly along sections of road where there are numerous bus stops.

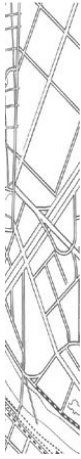
The existing T2 transit lane on William Street westbound (east of Forbes Street) will permit shared use by bicyclists and transit vehicles in accordance with the Austroads guidelines.

Removal of bicycle lanes on Kings Cross Road eastbound between Darlinghurst Road and Ward Avenue (approximately 400m) and on Craigend Street between

³ RTA's Action for Bikes Bike Plan 2010, New South Wales 1999

⁴ Austroads Guide to Traffic Engineering – Part 14 Bicycles, Austroads, 1999

Roselyn Street footbridge and Darlinghurst Road (approximately 400 metres) reverts these streets back to the same situation prior to CCT. These are relatively low volumes streets with wide travel lanes. A shared mixed traffic lane is considered an acceptable bicycling environment in this situation.



4. Conclusions

The analysis has indicated that the proposed package of proposed changes does address a number local traffic congestion issues. Travel demand on the CBD surface streets remains substantially unchanged.

For the most part the proposed package of changes fine tunes the project and is not a significant variation from the Approved Project.

The intent of the changes is to alleviate traffic congestion on some surface roads and improve accessibility within Sydney CBD which has precipitated since the opening of the CCT.

Analysis confirms the changes should improve traffic flow in the vicinity of Market/Clarence Streets and William Street eastbound from Palmer Street, while at the same time improving conditions for CBD traffic which cannot otherwise make use of the CCT.

Access out of Woolloomooloo to Cahill Expressway and Sydney Harbour Tunnel is also considerably improved without attracting a significant level of through traffic into the area.

The changes also assist road based public transport options by reducing congestion which, at present, is impinging upon access to and the operation of bus and transit lanes.



Appendix A - Model Outputs Summary Tables

2006

	Approved			Proposed Changes			Difference	%
	AM	PM	ADT	AM	PM	ADT		
Eastbound/Northbound								
Kings Cross Tunnel	966	1,499	18,363	962	1,463	18,065	-298	-1.6%
William St East of College St	707	1,162	13,923	698	1,104	13,424	-499	-3.6%
Park St at Hyde Park	678	1,148	13,602	684	1,169	13,804	201	1.5%
Park St East of George St	509	167	5,036	466	222	5,125	89	1.8%
Druitt St East of Kent St	0	0	0	0	0	0	0	n/a
Market St East of Kent St	55	50	782	52	50	760	-22	-2.9%
Elizabeth St South of Park St	664	598	9,401	713	757	10,950	1,549	16.5%
Druitt St on ramp to Western Distributor	0	0	0	0	0	0	0	0.0%
Market St on ramp to Western Distributor	0	0	0	0	0	0	0	0.0%
Palmer St North of William St	329	222	3,807	600	339	6,488	2,681	70.4%
Riley St North of William St	390	437	5,714	390	556	6,537	822	14.4%
Cowper Wharf Road East of Cahill Ewy Ramp	655	704	10,124	545	653	8,924	-1,199	-11.8%
Sir John Young Cres on ramp to Cahill Exwy	355	509	5,303	882	1,229	12,957	7,654	144.3%

	Approved			Proposed Changes			Difference	%
	AM	PM	ADT	AM	PM	ADT		
Westbound/Southbound								
Kings Cross Tunnel	1,303	599	12,294	1,397	790	14,136	1,842	15.0%
William St East of College St	1,569	954	16,307	1,620	1,279	18,738	2,430	14.9%
Park St at Hyde Park	1,179	434	10,426	1,386	1,094	16,029	5,604	53.8%
Park St East of George St	939	594	14,186	1,526	1,515	28,140	13,954	98.4%
Druitt St East of Kent St	0	0	0	1,048	1,075	16,387	16,387	n/a
Market St East of Kent St	1,407	1,897	26,548	642	1,593	17,959	-8,590	-32.4%
Elizabeth St South of Park St	231	406	5,118	213	406	4,974	-145	-2.8%
Druitt St on ramp to Western Distributor	1,043	858	14,656	1,081	902	15,288	632	4.3%
Market St on ramp to Western Distributor	1,668	3,235	39,397	1,145	3,095	34,069	-5,327	-13.5%
Palmer St North of William St	849	920	9,262	741	851	8,336	-927	-10.0%
Riley St North of William St	40	50	471	46	72	618	147	31.1%
Cowper Wharf Road East of Cahill Ewy Ramp	321	485	5,210	231	348	3,742	-1,467	-28.2%
Sir John Young Cres on ramp to Cahill Exwy	0	0	0	0	0	0	0	n/a

	Approved			Proposed Changes			Difference	%
	AM	PM	ADT	AM	PM	ADT		
Two-way								
Kings Cross Tunnel	2,269	2,098	30,656	2,359	2,253	32,200	1,544	5.0%
William St East of College St	2,276	2,116	30,230	2,318	2,383	32,161	1,931	6.4%
Park St at Hyde Park	1,857	1,582	24,028	2,070	2,263	29,833	5,805	24.2%
Park St East of George St	1,448	761	19,221	1,992	1,737	33,265	14,044	73.1%
Druitt St East of Kent St	0	0	0	1,048	1,075	16,387	16,387	n/a
Market St East of Kent St	1,462	1,947	27,330	694	1,643	18,719	-8,612	-31.5%
Elizabeth St South of Park St	895	1,004	14,519	926	1,163	15,924	1,405	9.7%
Druitt St on ramp to Western Distributor	1,043	858	14,656	1,081	902	15,288	632	4.3%
Market St on ramp to Western Distributor	1,668	3,235	39,397	1,145	3,095	34,069	-5,327	-13.5%
Palmer St North of William St	1,178	1,142	13,070	1,341	1,190	14,824	1,754	13.4%
Riley St North of William St	430	487	6,186	436	628	7,155	969	15.7%
Cowper Wharf Road East of Cahill Ewy Ramp	976	1,189	15,333	776	1,001	12,667	-2,667	-17.4%
Sir John Young Cres on ramp to Cahill Exwy	355	509	5,303	882	1,229	12,957	7,654	144.3%

2011

	Approved			Proposed Changes			Difference	%
	AM	PM	ADT	AM	PM	ADT		
Eastbound/Northbound								
Kings Cross Tunnel	987	1,661	17,115	972	1,601	16,631	-485	-2.8%
William St East of College St	742	1,206	12,591	753	1,194	12,584	-6	-0.1%
Park St at Hyde Park	784	1,068	11,970	757	1,084	11,899	-71	-0.6%
Park St East of George St	499	188	6,357	393	176	5,265	-1,092	-17.2%
Druitt St East of Kent St	0	0	0	0	0	0	0	n/a
Market St East of Kent St	56	50	852	63	51	916	64	7.5%
Elizabeth St South of Park St	897	636	12,318	868	909	14,279	1,961	15.9%
Druitt St on ramp to Western Distributor	0	0	0	0	0	0	0	0.0%
Market St on ramp to Western Distributor	0	0	0	0	0	0	0	0.0%
Palmer St North of William St	359	233	3,100	650	344	5,204	2,105	67.9%
Riley St North of William St	389	441	4,346	383	507	4,660	314	7.2%
Cowper Wharf Road East of Cahill Exy Ramp	640	783	9,198	503	716	7,879	-1,319	-14.3%
Sir John Young Cres on ramp to Cahill Exwy	497	540	6,365	970	1,266	13,725	7,359	115.6%

	Approved			Proposed Changes			Difference	%
	AM	PM	ADT	AM	PM	ADT		
Westbound/Southbound								
Kings Cross Tunnel	1,269	586	11,990	1,386	755	13,838	1,849	15.4%
William St East of College St	1,557	1,007	16,572	1,599	1,354	19,087	2,514	15.2%
Park St at Hyde Park	1,144	476	10,471	1,433	1,092	16,320	5,849	55.9%
Park St East of George St	952	594	14,306	1,538	1,710	30,055	15,749	110.1%
Druitt St East of Kent St	0	0	0	1,075	1,141	17,105	17,105	n/a
Market St East of Kent St	1,538	1,958	28,091	989	1,700	21,607	-6,484	-23.1%
Elizabeth St South of Park St	226	418	5,175	208	414	4,998	-177	-3.4%
Druitt St on ramp to Western Distributor	1,152	948	16,190	1,194	999	16,907	717	4.4%
Market St on ramp to Western Distributor	1,742	3,422	41,494	1,188	3,302	36,078	-5,416	-13.1%
Palmer St North of William St	882	1,001	9,859	742	999	9,116	-743	-7.5%
Riley St North of William St	45	55	524	47	99	764	241	46.0%
Cowper Wharf Road East of Cahill Exy Ramp	345	508	5,513	236	379	3,975	-1,538	-27.9%
Sir John Young Cres on ramp to Cahill Exwy	0	0	0	0	0	0	0	n/a

	Approved			Proposed Changes			Difference	%
	AM	PM	ADT	AM	PM	ADT		
Two-way								
Kings Cross Tunnel	2,256	2,247	29,105	2,358	2,356	30,469	1,364	4.7%
William St East of College St	2,299	2,213	29,163	2,352	2,548	31,671	2,508	8.6%
Park St at Hyde Park	1,928	1,544	22,441	2,190	2,176	28,220	5,778	25.7%
Park St East of George St	1,451	782	20,663	1,931	1,886	35,321	14,658	70.9%
Druitt St East of Kent St	0	0	0	1,075	1,141	17,105	17,105	n/a
Market St East of Kent St	1,594	2,008	28,943	1,052	1,751	22,523	-6,420	-22.2%
Elizabeth St South of Park St	1,123	1,054	17,493	1,076	1,323	19,276	1,784	10.2%
Druitt St on ramp to Western Distributor	1,152	948	16,190	1,194	999	16,907	717	4.4%
Market St on ramp to Western Distributor	1,742	3,422	41,494	1,188	3,302	36,078	-5,416	-13.1%
Palmer St North of William St	1,241	1,234	12,959	1,392	1,343	14,320	1,361	10.5%
Riley St North of William St	434	496	4,869	430	606	5,424	555	11.4%
Cowper Wharf Road East of Cahill Exy Ramp	985	1,291	14,711	739	1,095	11,854	-2,857	-19.4%
Sir John Young Cres on ramp to Cahill Exwy	497	540	6,365	970	1,266	13,725	7,359	115.6%

